

FIG. 1 (1)

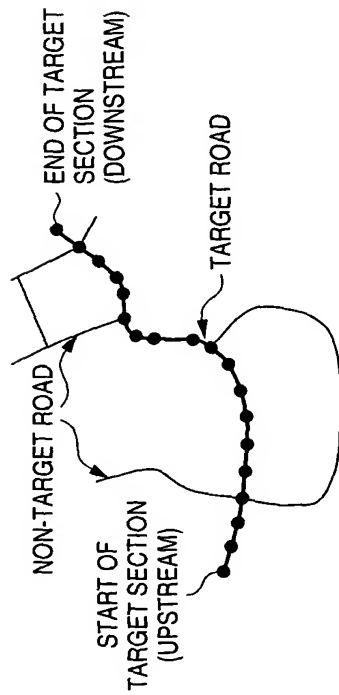


FIG. 1 (2)

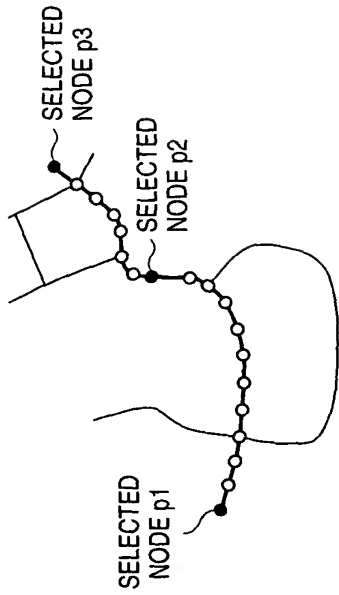


FIG. 1 (3)

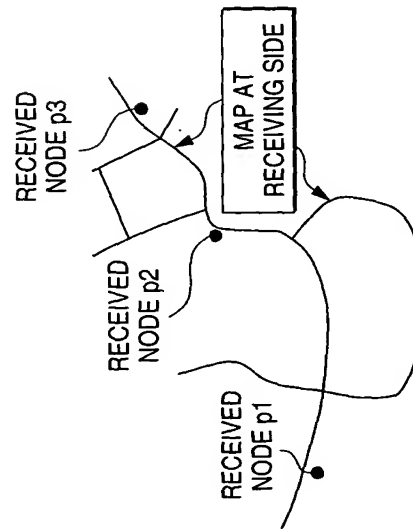


FIG. 1 (4)

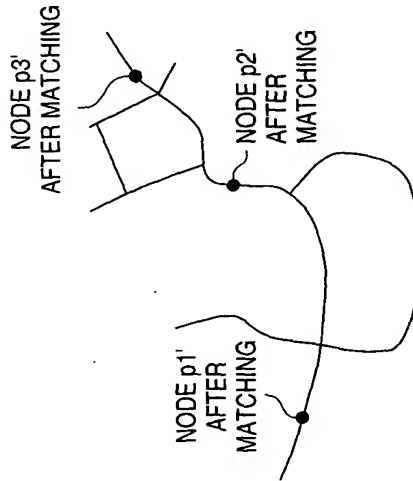


FIG. 1 (5)

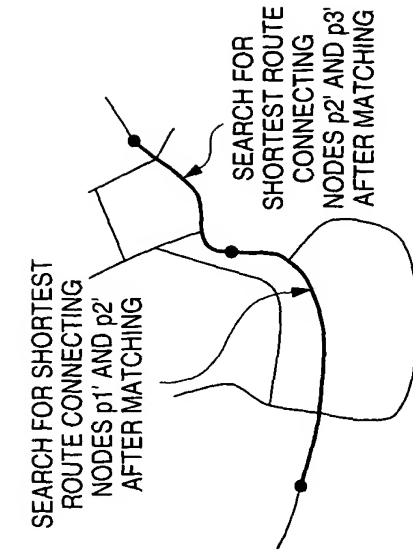


FIG. 2

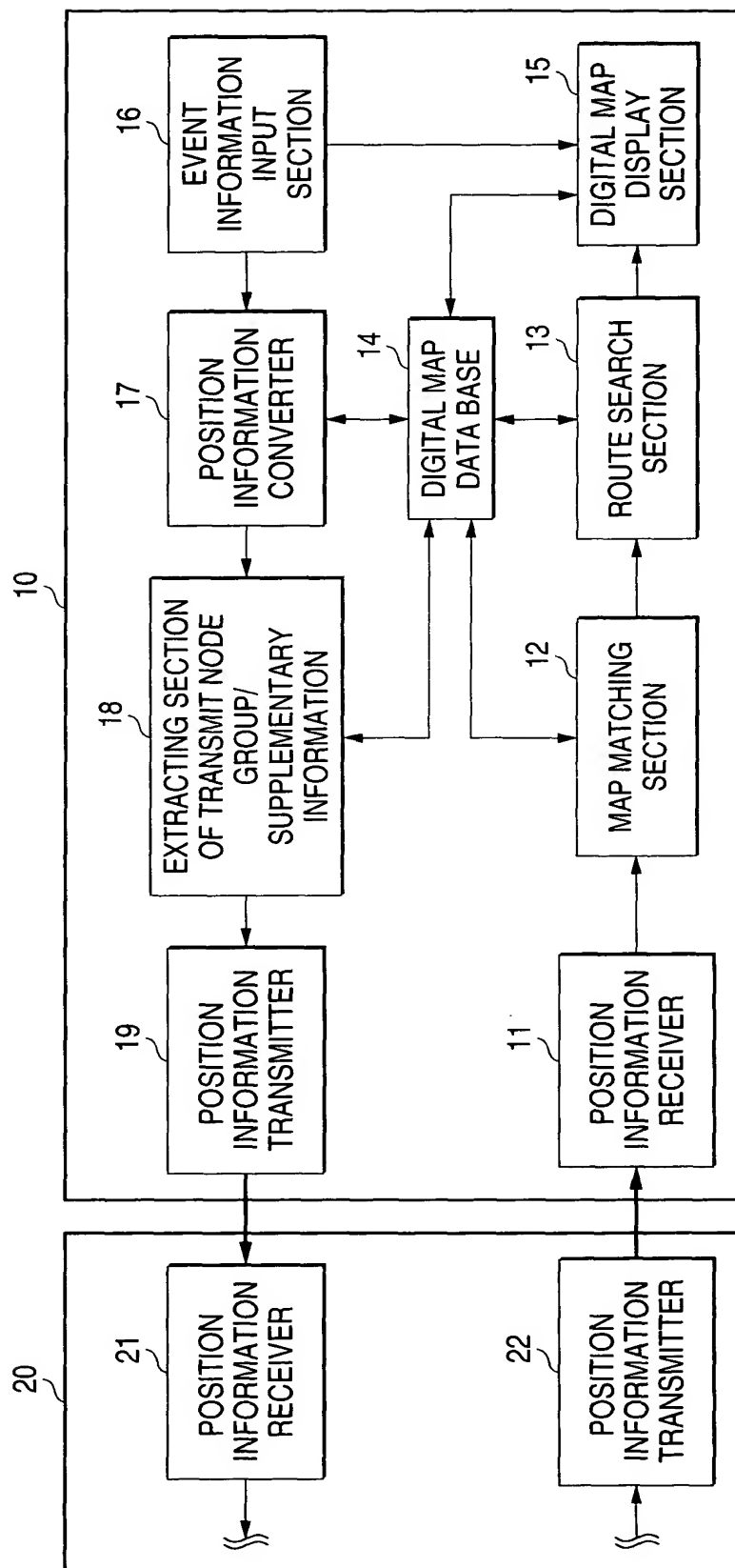


FIG. 3

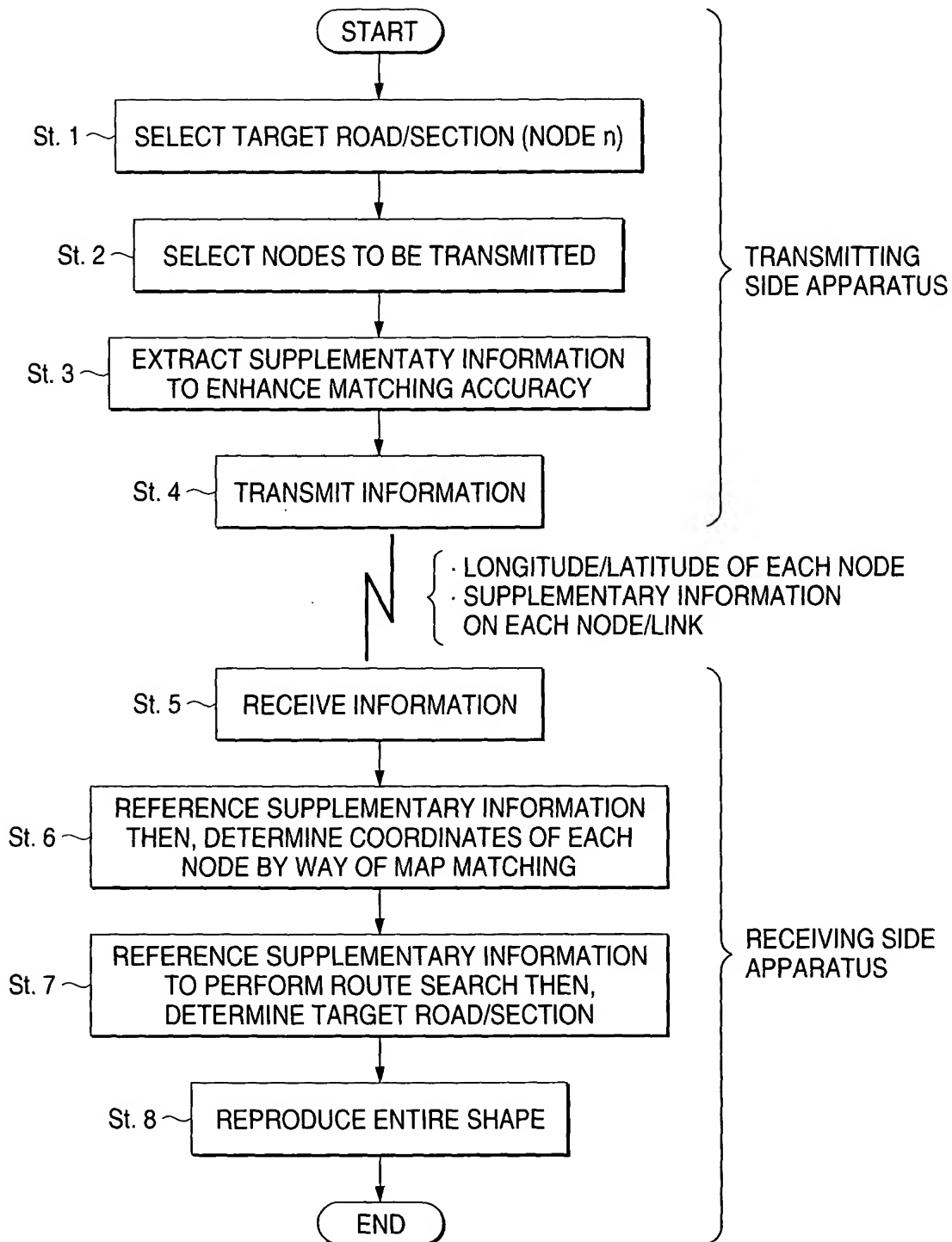


FIG. 4 (a)

VECTOR DATA TYPE (= ROAD)
ONE-WAY TRAFFIC DIRECTION (FORWARD/BACKWARD/NONE)
TOTAL NUMBER OF NODES
NODE NUMBER p1
NODE 1 ABSOLUTE COORDINATE IN X DIRECTION (LONGITUDE)
NODE 1 ABSOLUTE COORDINATE IN Y DIRECTION (LATITUDE)
NODE NUMBER p2
NODE 2 RELATIVE COORDINATE (x2)
NODE 2 RELATIVE COORDINATE (y2)
⋮
NODE NUMBER pn
NODE n RELATIVE COORDINATE IN X DIRECTION (LONGITUDE)
NODE n RELATIVE COORDINATE IN Y DIRECTION (LATITUDE)

FIG. 4 (b)

VECTOR DATA TYPE (= ACCIDENT)
RELATED REGULATION INFORMATION (SINGLE-LANE TRAFFIC)
EVENT POSITION REFERENCE POINT NODE NUMBER (= p1)
DIRECTION FLAG (= FORWARD DIRECTION WITH RESPECT)
RELATIVE DISTANCE FROM REFERENCE POINT
⋮
EVENT NUMBER (= TRAFFIC ACCIDENT)
AVERAGE SPEED IN TRAFFIC CONGESTION (= 15km)
EVENT POSITION REFERENCE POINT NODE NUMBER (= pj)
DIRECTION FLAG (= BACKWARD DIRECTION WITH RESPECT TO NODE LINE)
RELATIVE DISTANCE FROM REFERENCE POINT (START POINT SIDE)
RELATIVE DISTANCE FROM REFERENCE POINT (END POINT SIDE)

FIG. 4 (c)

VECTOR DATA TYPE (= ROAD)
ONE-WAY TRAFFIC DIRECTION (FORWARD/BACKWARD/NONE)
TOTAL NUMBER OF NODES
NODE NUMBER p1
NODE 1 ABSOLUTE COORDINATE IN X DIRECTION (LONGITUDE)
NODE 1 ABSOLUTE COORDINATE IN Y DIRECTION (LATITUDE)
NODE NUMBER p2
NODE 2 ABSOLUTE COORDINATE IN X DIRECTION (LONGITUDE)
NODE 2 ABSOLUTE COORDINATE IN Y DIRECTION (LATITUDE)
⋮
NODE NUMBER pn
NODE n ABSOLUTE COORDINATE IN X DIRECTION (LONGITUDE)
NODE n ABSOLUTE COORDINATE IN Y DIRECTION (LATITUDE)

FIG. 4 (d)

VECTOR DATA TYPE (= ROAD)	SECTION NUMBER #1
ONE-WAY TRAFFIC DIRECTION (FORWARD/BACKWARD/NONE)	SECTION #1 LOWER LEFT POINT ABSOLUTE LONGITUDE
TOTAL NUMBER OF NODES	SECTION #1 LOWER LEFT POINT ABSOLUTE LATITUDE
NODE NUMBER p1	SECTION #1 UPPER RIGHT POINT ABSOLUTE LONGITUDE
NODE 1 SECTION NUMBER	SECTION #1 UPPER RIGHT POINT ABSOLUTE LATITUDE
NODE 1 NORMALIZED COORDINATE IN X DIRECTION (LONGITUDE)	⋮
NODE 1 NORMALIZED COORDINATE IN Y DIRECTION (LATITUDE)	SECTION NUMBER #m
NODE NUMBER p2	SECTION #m LOWER LEFT POINT ABSOLUTE LONGITUDE
NODE 2 SECTION NUMBER	SECTION #m LOWER LEFT POINT ABSOLUTE LATITUDE
NODE 2 NORMALIZED COORDINATE IN X DIRECTION (LONGITUDE)	SECTION #m UPPER RIGHT POINT ABSOLUTE LONGITUDE
NODE 2 NORMALIZED COORDINATE IN Y DIRECTION (LATITUDE)	SECTION #m UPPER RIGHT POINT ABSOLUTE LATITUDE
⋮	
NODE NUMBER pn	
NODE n SECTION NUMBER	
NODE n NORMALIZED COORDINATE IN X DIRECTION (LONGITUDE)	
NODE n NORMALIZED COORDINATE IN Y DIRECTION (LATITUDE)	

FIG. 4 (e)

VECTOR DATA TYPE (= ROAD)
ONE-WAY TRAFFIC DIRECTION (FORWARD/BACKWARD/NONE)
TOTAL NUMBER OF NODES
REFERENCE POINT NODE NUMBER p0
REFERENCE POINT NODE ABSOLUTE COORDINATE IN X DIRECTION (LONGITUDE)
REFERENCE POINT NODE ABSOLUTE COORDINATE IN Y DIRECTION (LATITUDE)
NODE NUMBER p1
DISTANCE FROM REFERENCE POINT NODE
ABSOLUTE AZIMUTH FROM REFERENCE POINT NODE
NODE NUMBER p2
DISTANCE FROM NODE p1
ABSOLUTE AZIMUTH FROM NODE p1
⋮
NODE NUMBER pn-1
DISTANCE FROM NODE Pn-2
ABSOLUTE AZIMUTH FROM NODE pn-2

FIG. 4 (f)

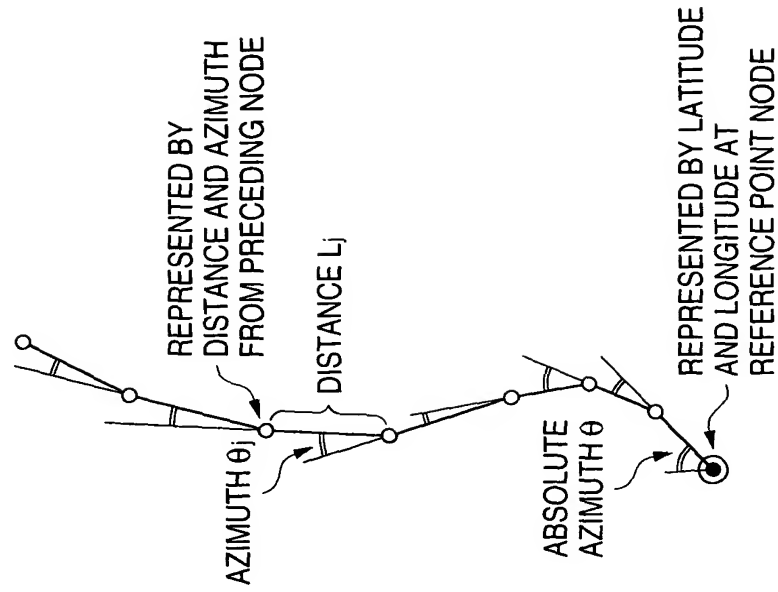


FIG. 5 (a)

VECTOR DATA TYPE (= ROAD)
ONE-WAY TRAFFIC DIRECTION (FORWARD/BACKWARD/NONE)
TOTAL NUMBER OF NODES
NODE NUMBER p1
NODE 1 ABSOLUTE COORDINATE IN X DIRECTION (LONGITUDE)
NODE 1 ABSOLUTE COORDINATE IN Y DIRECTION (LATITUDE)
ROAD TYPE BETWEEN NODES p1 AND p2 (= NATIONAL HIGHWAY)
ROAD NUMBER BETWEEN NODES p1 AND p2 (= 256)
LINK TYPE BETWEEN NODES p1 AND p2 (= MAIN LINE)
NODE NUMBER p2
NODE 2 RELATIVE COORDINATE IN X DIRECTION (LONGITUDE)
NODE 2 RELATIVE COORDINATE IN Y DIRECTION (LATITUDE)
⋮
NODE NUMBER pn
NODE n RELATIVE COORDINATE IN X DIRECTION (LONGITUDE)
NODE n RELATIVE COORDINATE IN Y DIRECTION (LATITUDE)

FIG. 5 (b)

NODE NUMBER p1
NODE TYPE (= INTERSECTION)
NAME (INTERSECTION/IC NAME)
NUMBER OF CONNECTING LINKS I4 OF p1
ANGLE 1 BETWEEN CONNECTING LINKS OF p1
⋮
ANGLE I4 BETWEEN CONNECTING LINKS OF p1
⋮
NODE NUMBER pm
NODE TYPE (= INTERSECTION)
NAME (INTERSECTION/IC NAME)
NUMBER OF CONNECTING LINKS In OF pm
ANGLE 1 BETWEEN CONNECTING LINKS OF pm
⋮
ANGLE In BETWEEN CONNECTING LINKS OF p1

FIG. 6

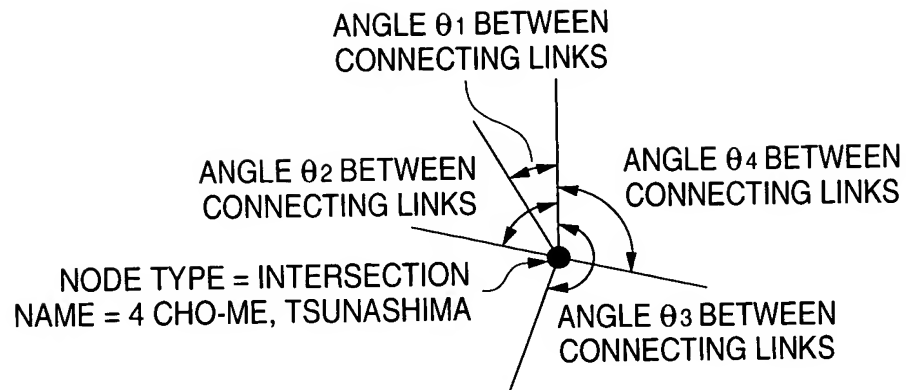


FIG. 7

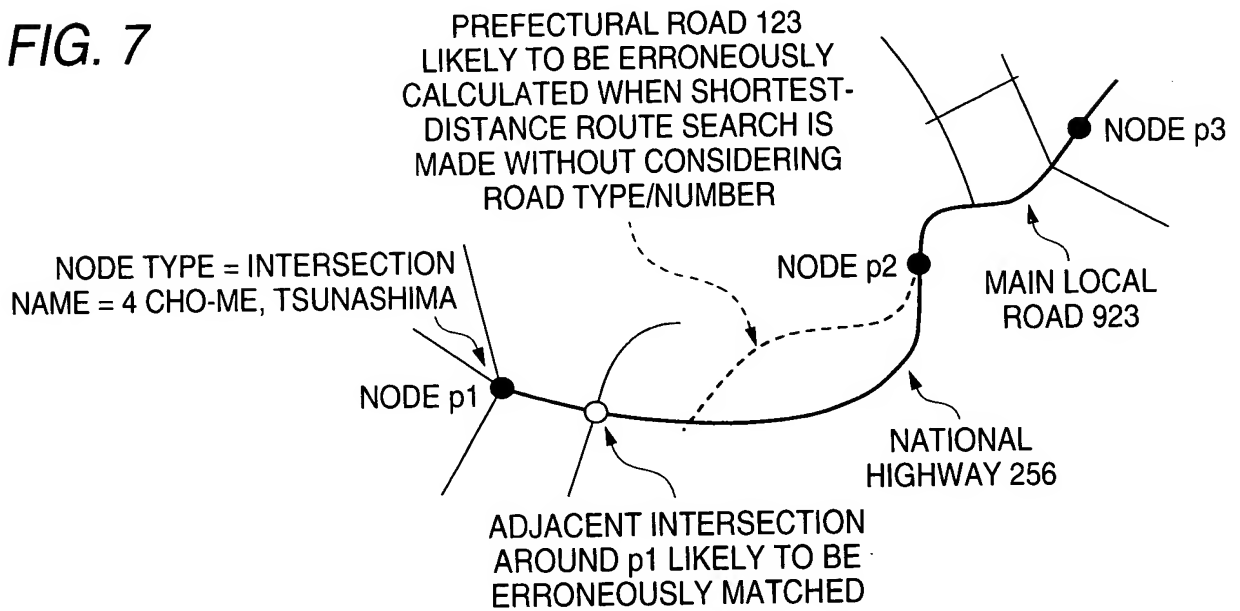


FIG. 8

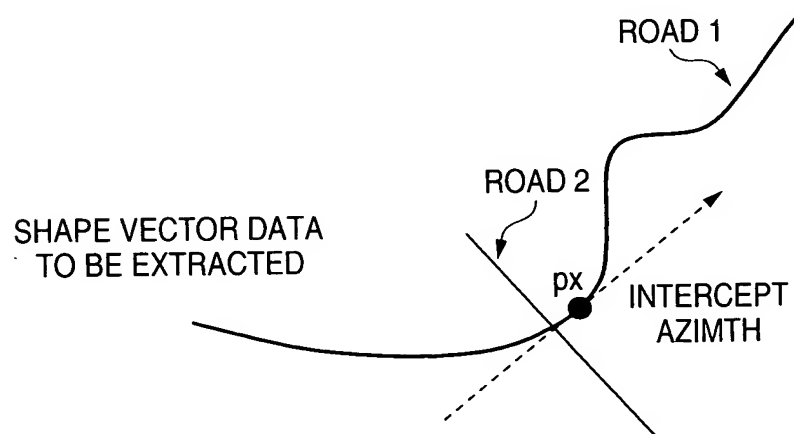


FIG. 9

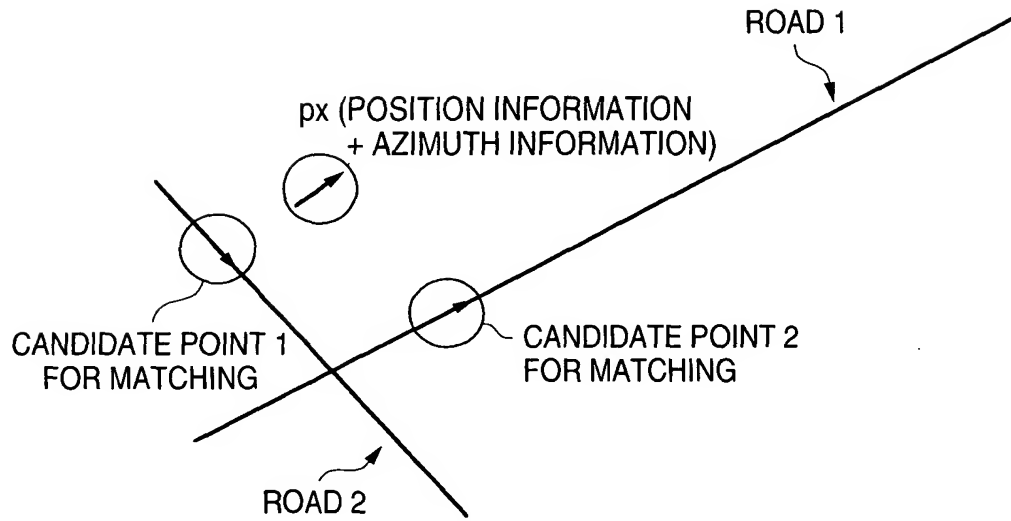


FIG. 10

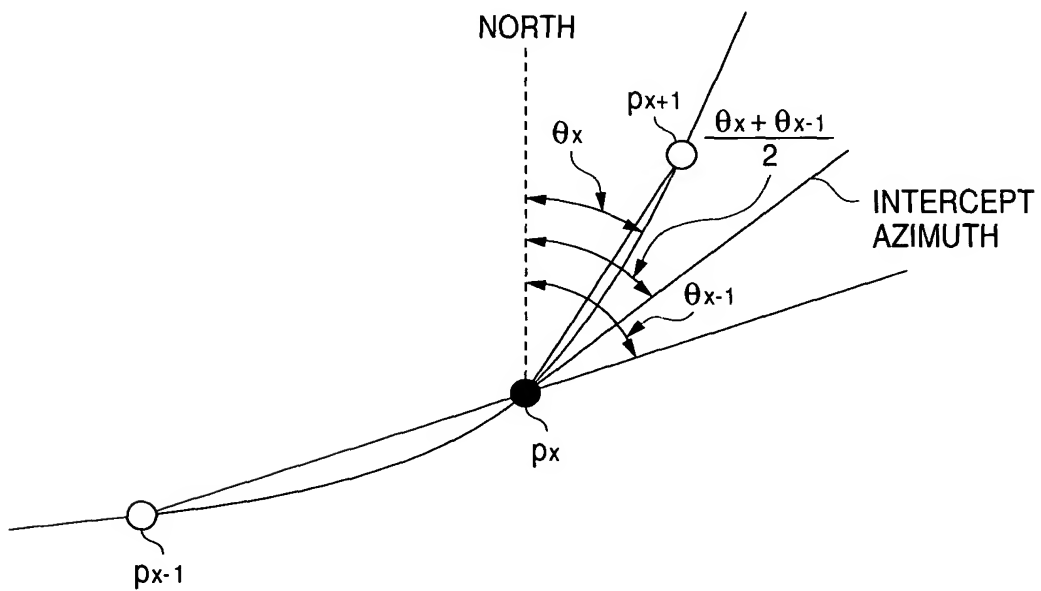


FIG. 11

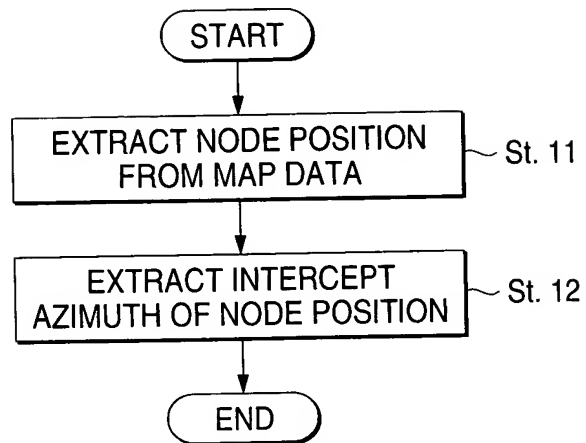


FIG. 12

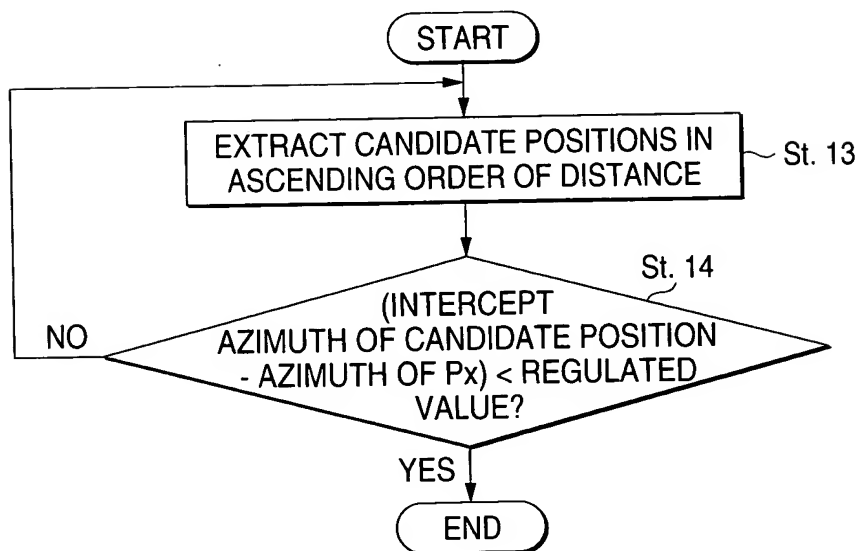


FIG. 13

VECTOR DATA TYPE (= ROAD)
ONE-WAY TRAFFIC DIRECTION (FORWARD/BACKWARD/NONE)
TOTAL NUMBER OF NODES
NODE NUMBER p1
NODE 1 ABSOLUTE COORDINATE IN X DIRECTION (LONGITUDE)
NODE 1 ABSOLUTE COORDINATE IN Y DIRECTION (LATITUDE)
NODE 1 ABSOLUTE AZIMUTH (= ANGLE θ_1 AT NODE p1)
NODE NUMBER p2
NODE 2 RELATIVE COORDINATE IN X DIRECTION (LONGITUDE)
NODE 2 RELATIVE COORDINATE IN Y DIRECTION (LATITUDE)
NODE 2 RELATIVE AZIMUTH (= ANGLE θ_2 AT NODE p2)
⋮
NODE NUMBER pn
NODE n RELATIVE COORDINATE IN X DIRECTION (LONGITUDE)
NODE n RELATIVE COORDINATE IN Y DIRECTION (LATITUDE)
NODE n RELATIVE AZIMUTH (= ANGLE θ_n AT NODE pn)

FIG. 14 (1)

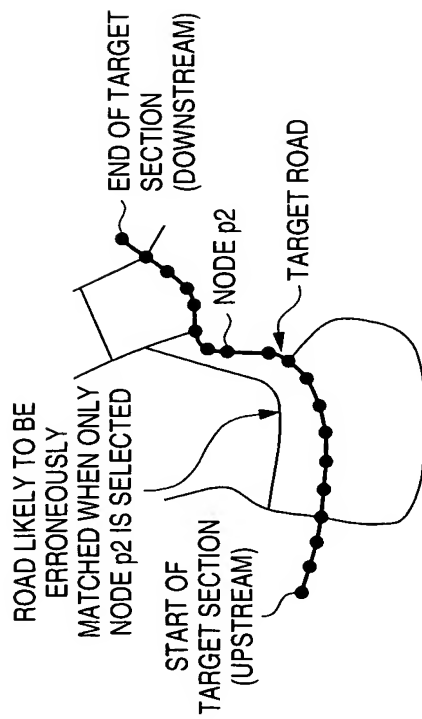


FIG. 14 (2)

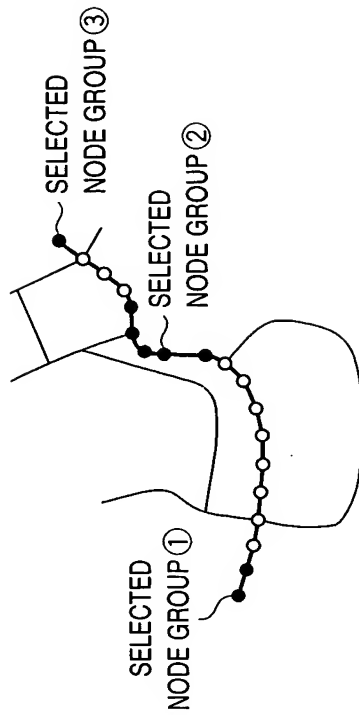


FIG. 14 (3)

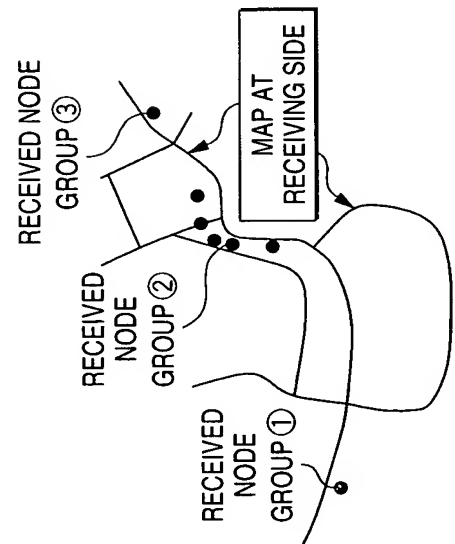


FIG. 14 (4)

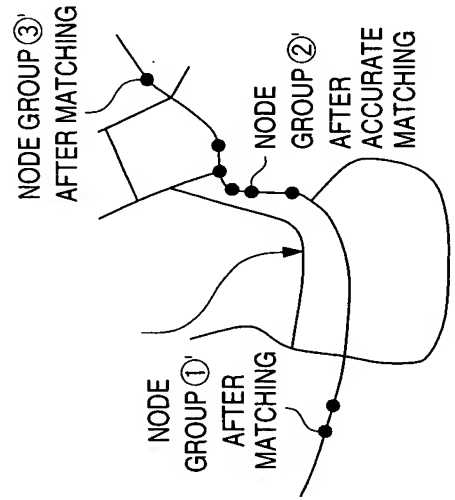


FIG. 14 (5)

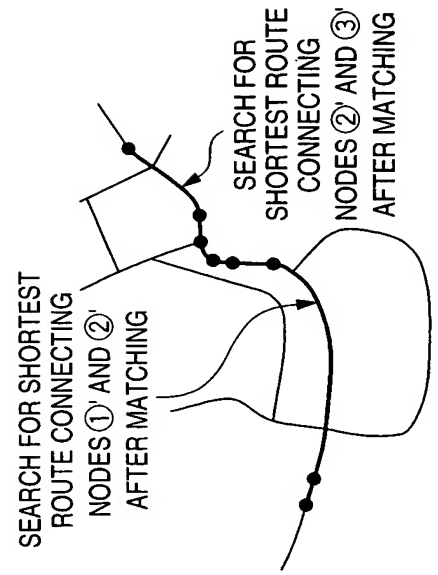


FIG. 15

VECTOR DATA TYPE (= ROAD)
ONE-WAY TRAFFIC DIRECTION (FORWARD/BACKWARD/NONE)
TOTAL NUMBER OF NODES (n)
NUMBER OF NODES m CONSTITUTING NODE GROUP 1
NODE NUMBER p_{1-1}
NODE 1-1 ABSOLUTE COORDINATE IN X DIRECTION (LONGITUDE)
NODE 1-1 ABSOLUTE COORDINATE IN Y DIRECTION (LATITUDE)
NODE 1-1 ABSOLUTE AZIMUTH (= ANGLE θ_{1-1} AT NODE p_{1-1})
⋮
NODE NUMBER p_{1-m}
NODE 1-m RELATIVE COORDINATE IN X DIRECTION (LONGITUDE)
NODE 1-m RELATIVE COORDINATE IN Y DIRECTION (LATITUDE)
NODE 1-m RELATIVE AZIMUTH (= ANGLE θ_{1-m} AT NODE p_{1-m})
⋮
NUMBER OF NODES s CONSTITUTING NODE GROUP n
NODE NUMBER p_{n-1}
NODE $n-1$ ABSOLUTE COORDINATE IN X DIRECTION (LONGITUDE)
NODE $n-1$ ABSOLUTE COORDINATE IN Y DIRECTION (LATITUDE)
NODE $n-1$ ABSOLUTE AZIMUTH (ANGLE θ_{n-1} AT NODE p_{n-1})
⋮
NODE NUMBER p_{n-s}
NODE $n-s$ ABSOLUTE COORDINATE IN X DIRECTION (LONGITUDE)
NODE $n-s$ ABSOLUTE COORDINATE IN Y DIRECTION (LATITUDE)
NODE $n-s$ ABSOLUTE AZIMUTH (= ANGLE θ_{n-s} AT NODE p_{n-s})

FIG. 16

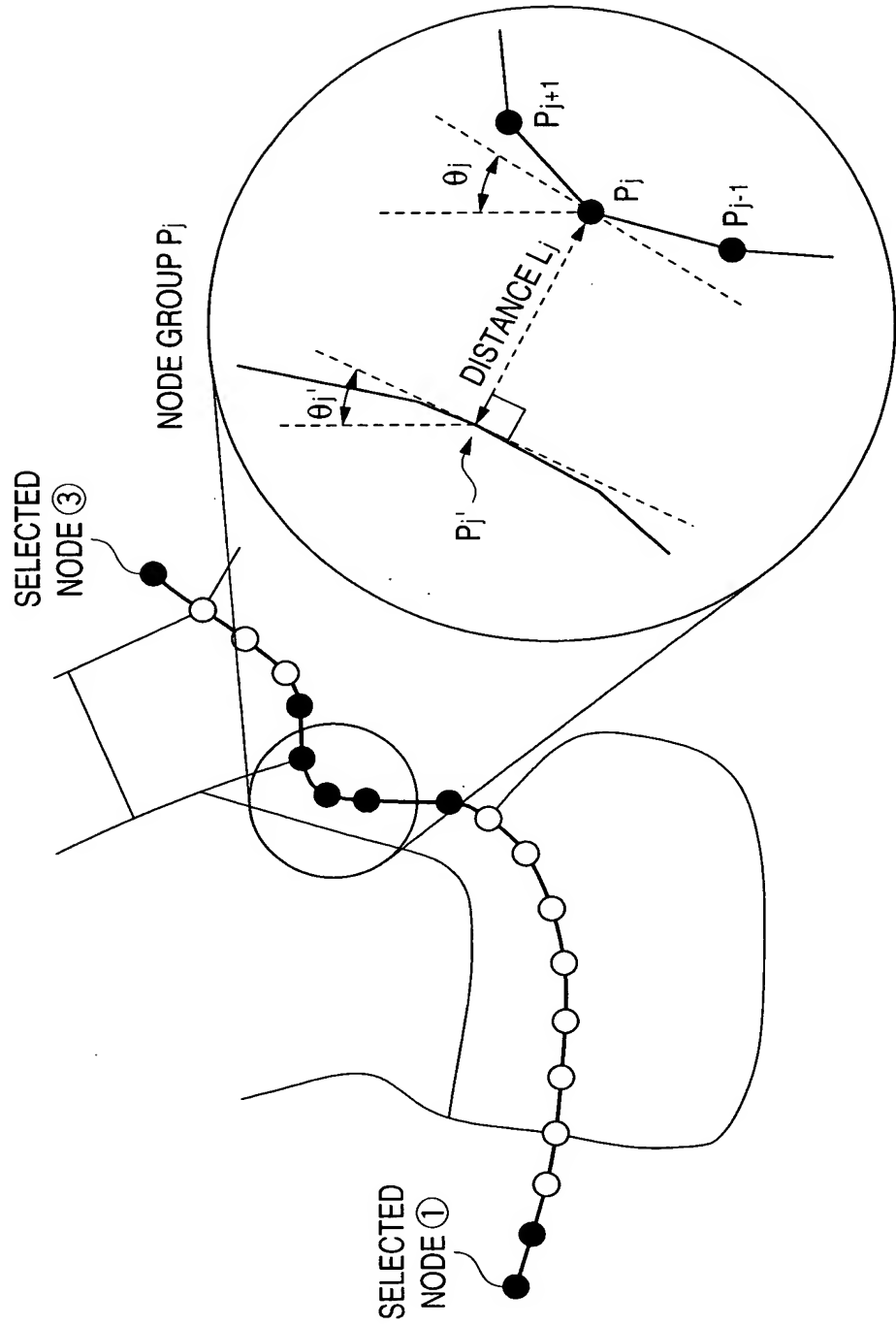


FIG. 17

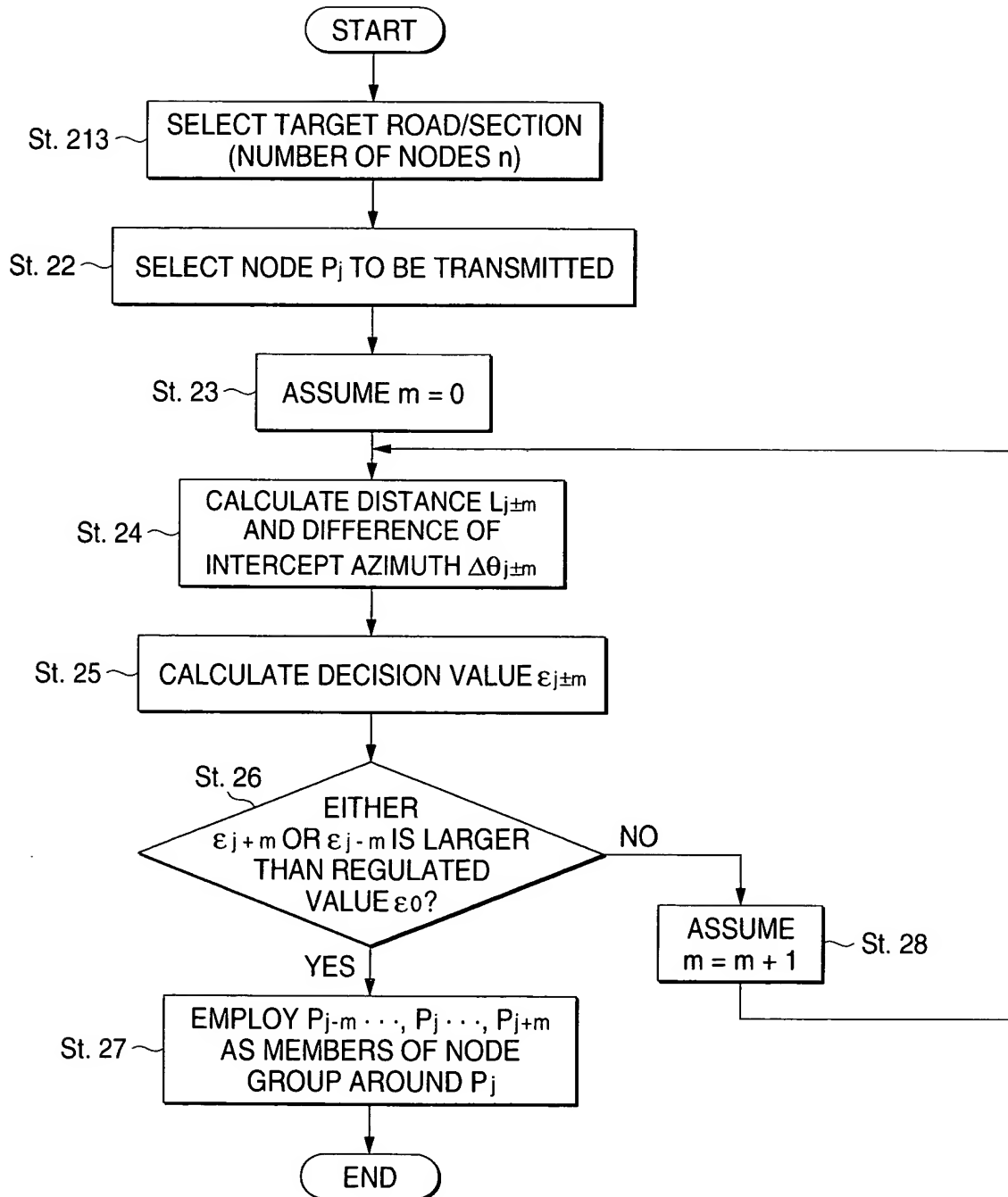


FIG. 18

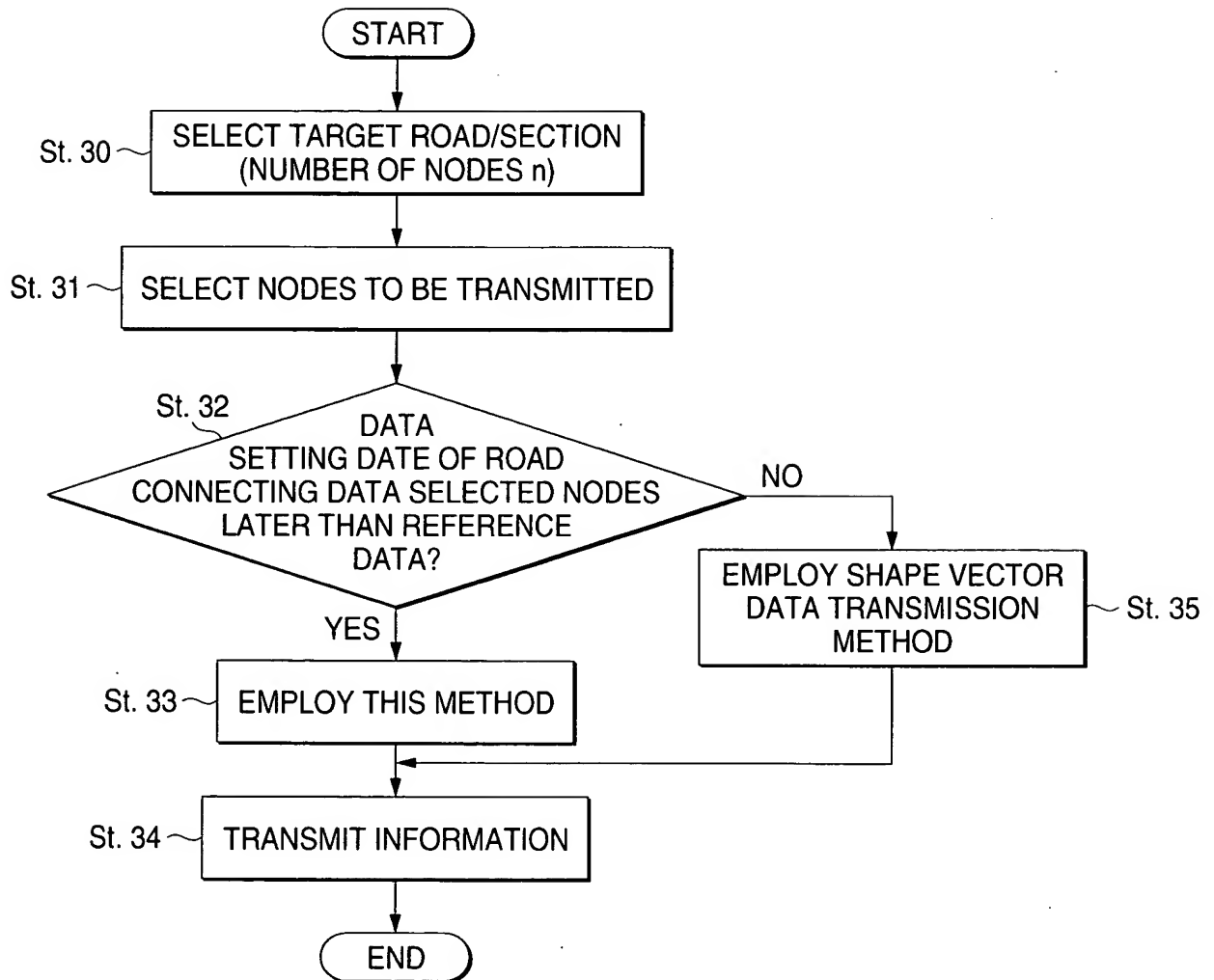


FIG. 19

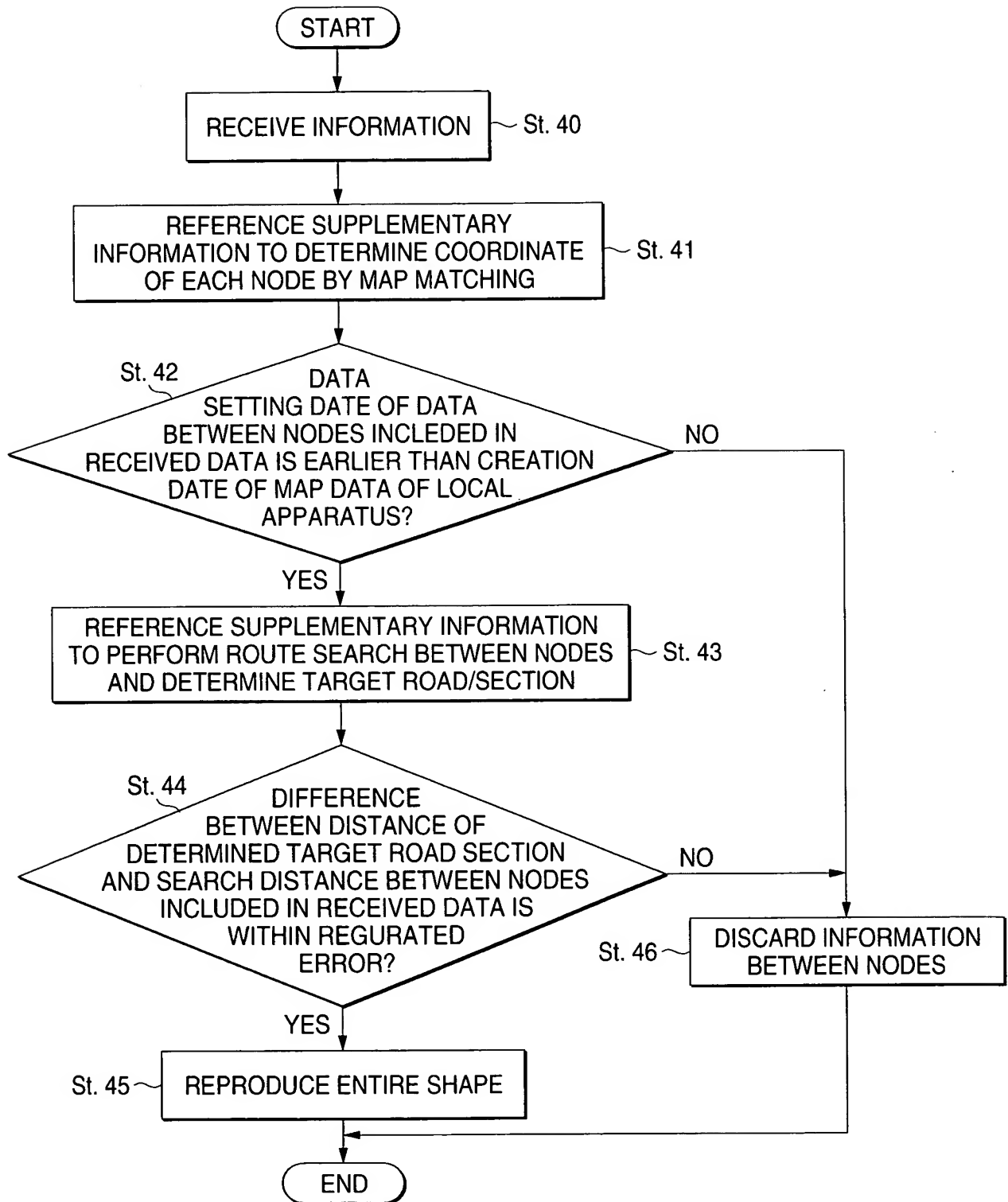


FIG. 20

	VECTOR DATA TYPE (= ROAD)
	ONE-WAY TRAFFIC DIRECTION (FORWARD/BACKWARD/NONE)
	TOTAL NUMBER OF NODES
	NODE NUMBER p1
	NODE 1 ABSOLUTE COORDINATE IN X DIRECTION (LONGITUDE)
	NODE 1 ABSOLUTE COORDINATE IN Y DIRECTION (LATITUDE)
	ROAD TYPE BETWEEN NODES p1 AND p2 (= NATIONAL HIGHWAY)
	ROAD NUMBER BETWEEN NODES p1 AND p2 (= 256)
	LINK TYPE BETWEEN NODES p1 AND p2 (= MAIN LINE)
▶	SETTING DATE OF DATA BETWEEN NODE p1 AND p2
▶	SEARCH DISTANCE BETWEEN NODES p1 AND p2
	NODE NUMBER p2
	NODE 2 RELATIVE COORDINATE IN X DIRECTION (LONGITUDE)
	NODE 2 RELATIVE COORDINATE IN Y DIRECTION (LATITUDE)
	⋮
	NODE NUMBER pn
	NODE n RELATIVE COORDINATE IN X DIRECTION (LONGITUDE)
	NODE n RELATIVE COORDINATE IN Y DIRECTION (LATITUDE)

FIG. 21

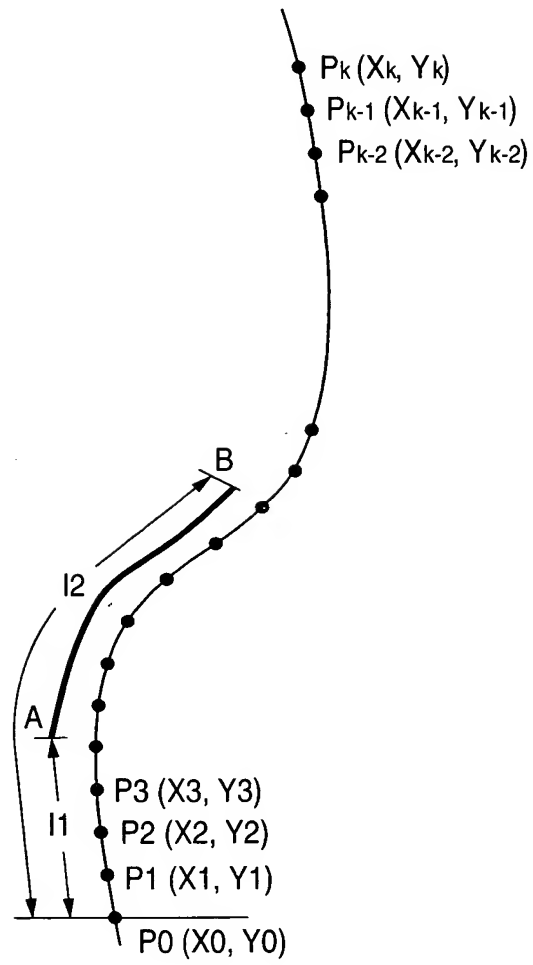


FIG. 22

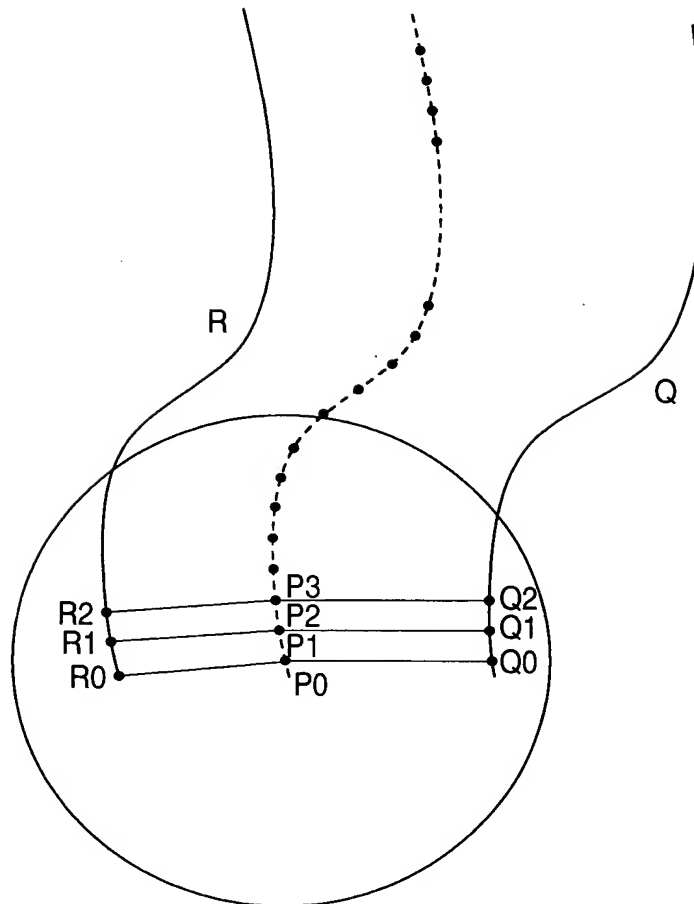


FIG. 23

